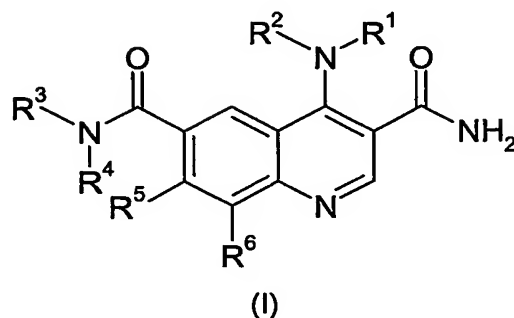


CLAIMS

1. A compound of formula (I) or a pharmaceutically acceptable salt thereof:



wherein:

10 R^1 is

Aryl optionally substituted by one or more substituents selected from the group consisting of: C_{1-6} alkoxy, halogen, $-CN$, C_{1-6} alkyl optionally substituted by one or more halogens, $-OH$, and C_{1-6} alkylCO;

15 Heteroaryl optionally substituted by C_{1-3} alkyl;

C_{3-7} cycloalkyl;

20 Heterocyclyl; or

Aryl fused to a heterocyclyl ring;

25 R^2 is hydrogen or C_{1-6} alkyl;

R^3 is

Hydrogen;

30 C_{1-6} alkyl optionally substituted by one or more substituents selected from the group consisting of: heterocyclyl (itself optionally substituted by C_{1-6} alkyl), R^7R^8NCO- , $R^9CONR^{10}-$, C_{1-6} alkoxy, $R^{11}R^{12}N-$, and C_{1-3} alkyl sulfonyl;

C_{3-7} cycloalkyl;

Aryl(CH₂)_m- wherein the aryl is optionally substituted by one or more substituents selected from the group consisting of: halogen and C₁₋₆ alkoxy;

Aryl fused to a heterocyclyl ring;

Aryl fused to a C₄₋₇ cycloalkyl wherein the cycloalkyl is optionally substituted by =O;

Heteroaryl(CH₂)_m- wherein the heteroaryl is optionally substituted by one or more substituents selected from the group consisting of: C₁₋₆ alkyl, halogen and C₁₋₆ alkoxy;

Heterocyclyl(CH₂)_m- wherein the heterocyclyl is optionally substituted by one or more substituents selected from the group consisting of: C₁₋₆ alkylCO, C₁₋₆ alkyl;

R⁴ is hydrogen or C₁₋₆ alkyl;

R³ and R⁴ together with the nitrogen atom to which they are attached may form a heterocyclyl ring, which is optionally substituted by one or more substituents selected from the group consisting of: C₁₋₆ alkylCO, C₁₋₆alkoxy, C₃₋₇cycloalkyl, OH, halogen, C₁₋₆ alkyl, -(CH₂)_mNR¹³R¹⁴, -(CH₂)_mCONR¹⁵R¹⁶, -(CH₂)_mNR¹⁷COR¹⁸, heteroaryl, heteroarylC₁₋₄alkyl, heteroarylCO, -CO₂C₁₋₆alkyl and C₁₋₆alkoxyC₁₋₄alkyl;

R⁵ is hydrogen or C₁₋₆ alkyl;

R⁶ is hydrogen, C₁₋₆ alkyl, C₁₋₆alkoxy, fluorine, chlorine, or bromine;;

m is 0-6;

R⁷⁻¹⁸ all independently represent hydrogen, C₁₋₆ alkyl;

R⁷ and R⁸ together with the nitrogen atom to which they are attached may form a heterocyclyl ring;

R¹¹ and R¹² together with the nitrogen atom to which they are attached may form a heterocyclyl ring;

R¹³ and R¹⁴ together with the nitrogen atom to which they are attached may form a heterocyclyl ring.

2. A compound according to claim 1 wherein:

R¹ is

5 Aryl optionally substituted by one or more substituents selected from the group consisting of: C₁₋₆ alkoxy, halogen, -CN, C₁₋₆ alkyl optionally substituted by one or more halogens, -OH, and C₁₋₆ alkylCO;

10 Heteroaryl optionally substituted by C₁₋₃ alkyl;

C₃₋₇ cycloalkyl;

Heterocyclyl; or

15 Aryl fused to a heterocyclyl ring;

R² is hydrogen;

R³ is

20 Hydrogen;

C₁₋₆ alkyl optionally substituted by one or more substituents selected from the group consisting of: C₁₋₃ alkoxy and C₁₋₃ alkyl sulfonyl;

25 C₃₋₇ cycloalkyl;

Aryl(CH₂)_m- wherein the aryl is optionally substituted by one or more substituents selected from the group consisting of: halogen and C₁₋₃ alkoxy;

30 Aryl fused to a heterocyclyl ring;

Aryl fused to a C₄₋₇ cycloalkyl wherein the cycloalkyl is optionally substituted by =O;

35 Heteroaryl(CH₂)_m- wherein the heteroaryl is optionally substituted by one or more substituents selected from the group consisting of: C₁₋₆ alkyl, halogen and C₁₋₆ alkoxy;

40 Heterocyclyl(CH₂)_m- wherein the heterocyclyl is optionally substituted by C₁₋₆ alkyl;

R⁴ is hydrogen or C₁₋₆ alkyl;

5 R³ and R⁴ together with the nitrogen atom to which they are attached may form a heterocyclyl ring, which is optionally substituted by one or more substituents selected from the group consisting of: C₁₋₆ alkylCO, halogen, C₁₋₆ alkyl, -(CH₂)_mNR¹³R¹⁴, -CO₂C₁₋₆alkyl and C₁₋₃alkoxyC₁₋₃alkyl;

R⁵ is hydrogen;

10 R⁶ is hydrogen or C₁₋₆ alkyl;

m is 0-6;

15 R¹³ and R¹⁴ are independently selected from C₁₋₆ alkyl.

3. A compound according to claim 1 or 2 wherein:

R¹ is selected from

20 Phenyl substituted by one or more substituents selected from the group consisting of: methoxy, halogen, methyl, trifluoromethyl, -OH and C₁₋₃ alkylCO;

Heteroaryl optionally substituted by methyl;

25 Phenyl fused to a heterocyclyl ring.

4. A compound according to any of claims 1 to 3 wherein:

R³ is selected from:

30 Hydrogen;

C₁₋₄ alkyl optionally substituted by methoxy or methylsulfonyl;

C₄₋₆ cycloalkyl;

35 Phenyl substituted by one or more substituents selected from halogen or methoxy;

Phenyl fused to a 5 membered heterocyclyl ring containing 1 or 2 oxygen atoms;

40 Phenyl fused to a C₄₋₇ cycloalkyl, wherein the cycloalkyl is substituted by =O;

Heteroaryl(CH₂)_m- wherein the heteroaryl is optionally substituted by methyl, methoxy or halogen

5 Heterocyclyl(CH₂)_m- wherein the heterocyclyl contains either five or six atoms including one or two heteroatoms selected from nitrogen or oxygen and wherein the heterocyclyl is optionally substituted by C₁₋₂ alkyl.

10 5. A compound according to any of claims 1 to 3 wherein:

R³ and R⁴ together with the nitrogen atom to which they are attached may form a five or six membered heterocyclyl ring, which is optionally substituted by one or more substituents selected from the group consisting of: acetyl, fluoro, methyl, -N(CH₃)₂, -CO₂C₁₋₂alkyl and C₁₋₃alkoxyC₁₋₃alkyl.

15 6. A compound according to any of claims 1 to 5 wherein:

R⁵ represents hydrogen.

20 7. A compound according to any of claims 1 to 6 wherein:

R⁶ is methyl.

25 8. A compound according to any of claims 1 to 7 wherein:

R¹ is 2,3-dihydro-1-benzofuran-4-yl or 4-fluoro-3-(methyloxy)phenyl;

R² is hydrogen;

30 R³ is selected from:

C₁₋₄ alkyl optionally substituted by methoxy or methylsulphonyl;

Pyridyl(CH₂)_m-;

35 Methylpyrazolyl;

Tetrahydropyranyl;

R⁴ is hydrogen or methyl;

40 R⁵ is hydrogen;

R⁶ is methyl.

9. A compound according to any of claims 1 to 8 wherein:

R¹ is 2,3-dihydro-1-benzofuran-4-yl, 1-methyl-1H-indazol-6-yl or 4-fluoro-3-(methyloxy)phenyl;

R² is hydrogen;

In a preferred embodiment R³ and R⁴ together with the nitrogen atom to which they are attached form a morpholinyl, a 2,6-dimethyl-4-morpholinyl, a 3-(ethoxycarbonyl)-1-piperidinyl, a 4-(*N,N*-dimethylamino)1-piperidinyl, a 4-acetyl-1-piperazinyl or a 4-[(2-methyloxy)ethyl]-1-piperazinyl ring.

R⁵ is hydrogen;

R⁶ is methyl.

10. A compound of formula (I) selected from the group consisting of:

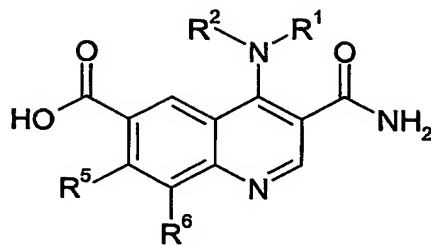
4-[[3-(methyloxy)phenyl]amino]-*N*⁶-phenyl-3,6-quinolinedicarboxamide,
 4-[[3-(methyloxy)phenyl]amino]-6-(4-morpholinylcarbonyl)-3-quinolinecarboxamide,
*N*⁶,*N*⁶-dimethyl-4-[[3-(methyloxy)phenyl]amino]-3,6-quinolinedicarboxamide,
*N*⁶-1,3-benzothiazol-6-yl-4-[[3-(methyloxy)phenyl]amino]-3,6-quinolinedicarboxamide,
*N*⁶-(1-methyl-1*H*-benzimidazol-5-yl)-4-[[3-(methyloxy)phenyl]amino]-3,6-quinolinedicarboxamide,
 4-[[3-(methyloxy)phenyl]amino]-*N*⁶-3-pyridinyl-3,6-quinolinedicarboxamide,
*N*⁶-[3-(methyloxy)phenyl]-4-[[3-(methyloxy)phenyl]amino]-3,6-quinolinedicarboxamide,
*N*⁶-1,3-benzodioxol-5-yl-4-[[3-(methyloxy)phenyl]amino]-3,6-quinolinedicarboxamide,
 4-[[3-(methyloxy)phenyl]amino]-*N*⁶-(3-oxo-2,3-dihydro-1*H*-inden-5-yl)-3,6-quinolinedicarboxamide,
 4-[[3-(methyloxy)phenyl]amino]-*N*⁶-[6-(methyloxy)-3-pyridinyl]-3,6-quinolinedicarboxamide,
*N*⁶-(4-chlorophenyl)-4-[[3-(methyloxy)phenyl]amino]-3,6-quinolinedicarboxamide,
 4-[[3-(methyloxy)phenyl]amino]-6-(1-piperidinylcarbonyl)-3-quinolinecarboxamide,
 4-[[3-(methyloxy)phenyl]amino]-*N*⁶-(1,3-thiazol-2-ylmethyl)-3,6-quinolinedicarboxamide,
*N*⁶-(1,3-dihydro-2-benzofuran-5-yl)-4-[[3-(methyloxy)phenyl]amino]-3,6-quinolinedicarboxamide,
*N*⁶-[(3-methyl-5-isoxazolyl)methyl]-4-[[3-(methyloxy)phenyl]amino]-3,6-quinolinedicarboxamide,

N^6 -[(5-chloro-2-pyridinyl)methyl]-4-[[3-(methyloxy)phenyl]amino]-3,6-quinolinedicarboxamide,
 4-(2,3-dihydro-1-benzofuran-4-ylamino)- N^6 ~,8-dimethyl- N^6 ~-[2-(methyloxy)ethyl]-3,6-quinolinedicarboxamide
 5 4-(2,3-dihydro-1-benzofuran-4-ylamino)-8-methyl-6-(4-morpholinylcarbonyl)-3-quinolinecarboxamide,
 8-methyl-4-[(1-methyl-1H-indazol-6-yl)amino]-6-(4-morpholinylcarbonyl)-3-quinolinecarboxamide,
 4-[[4-fluoro-3-(methyloxy)phenyl]amino]-8-methyl-6-(4-morpholinylcarbonyl)-3-quinolinecarboxamide,
 10 4-[[4-fluoro-3-(methyloxy)phenyl]amino]- N^6 ~,8-dimethyl- N^6 ~-[2-(methyloxy)ethyl]-3,6-quinolinedicarboxamide,
 4-[[4-fluoro-3-(methyloxy)phenyl]amino]- N^6 ~,8-dimethyl- N^6 ~-[2-(methylsulfonyl)ethyl]-3,6-quinolinedicarboxamide,
 15 6-[(4-acetyl-1-piperazinyl)carbonyl]-4-[[4-fluoro-3-(methyloxy)phenyl]amino]-8-methyl-3-quinolinecarboxamide,
 4-(2,3-dihydro-1-benzofuran-4-ylamino)- N^6 ~, N^6 ~,8-trimethyl-3,6-quinolinedicarboxamide,
 4-(2,3-dihydro-1-benzofuran-4-ylamino)-8-methyl-6-({4-[2-(methyloxy)ethyl]-1-piperazinyl}carbonyl)-3-quinolinecarboxamide,
 20 4-(2,3-dihydro-1-benzofuran-4-ylamino)-6-[(2,6-dimethyl-4-morpholinyl)carbonyl]-8-methyl-3-quinolinecarboxamide,
 4-(2,3-dihydro-1-benzofuran-4-ylamino)-6-[[4-(dimethylamino)-1-piperidinyl]carbonyl]-8-methyl-3-quinolinecarboxamide,
 25 4-(2,3-dihydro-1-benzofuran-4-ylamino)- N^6 ~,8-dimethyl- N^6 ~-(4-pyridinylmethyl)-3,6-quinolinedicarboxamide,
 6-[(4-acetyl-1-piperazinyl)carbonyl]-4-(2,3-dihydro-1-benzofuran-4-ylamino)-8-methyl-3-quinolinecarboxamide,
 4-(2,3-dihydro-1-benzofuran-4-ylamino)-8-methyl- N^6 ~-4-pyridinyl-3,6-quinolinedicarboxamide,
 30 4-(2,3-dihydro-1-benzofuran-4-ylamino)-8-methyl- N^6 ~-(tetrahydro-2H-pyran-4-yl)-3,6-quinolinedicarboxamide,
 4-(2,3-dihydro-1-benzofuran-4-ylamino)-8-methyl- N^6 ~-(1-methyl-1H-pyrazol-5-yl)-3,6-quinolinedicarboxamide.

35 and pharmaceutically acceptable salts thereof.

11. A process for the preparataion of a compound of formula (I) and pharmaceutically acceptable salts thereof as claimed in any of claims 1 to 10 which comprises:

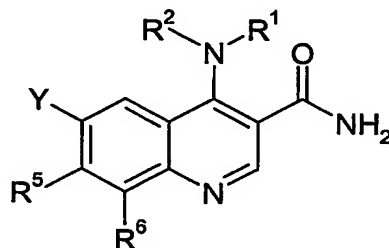
40 (A) reacting a compound of formula (II)



(II)

5 wherein R^1 , R^2 , R^5 and R^6 are as defined above with a suitable amide coupling agent followed by treatment with an amine of formula R^3R^4NH wherein R^3 and R^4 are as defined above; or

(B) reacting a compound of formula (IV)



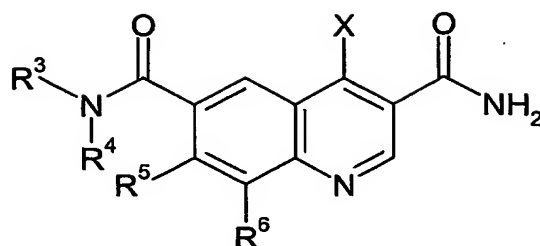
(IV)

10

15 wherein R^1 , R^2 , R^5 and R^6 are as defined above and Y represents chlorine, bromine or iodine, with carbon monoxide and an amine of formula R^3R^4NH , wherein R^3 and R^4 are as defined above, in a suitable solvent such as toluene, at a suitable temperature such as the reflux temperature of the solvent, in the presence of a suitable catalyst, such as a palladium catalyst, e.g. dichlorobis(triphenylphosphine)palladium(II) and a suitable base, such as triethylamine; or

(C) reacting a compound of formula (XI)

20



(XI)

wherein R^3 , R^4 , R^5 , R^6 are as defined above and X is halogen, by treatment with an amine of formula R^1R^2NH , wherein R^1 and R^2 are as defined above.

5

(D) interconversion of a compound of formula (I) into another compound of formula (I); or

(E) deprotecting a protected derivative of a compound of formula (I).

10

12. A compound or a pharmaceutically acceptable salt thereof, according to any of claims 1 to 10 for use in therapy.

15

13. A compound or a pharmaceutically acceptable salt thereof, according to any of claims 1 to 10 for use in the treatment or prophylaxis of inflammatory and/or allergic diseases.

20

14. The use of a compound according to any of claims 1 to 10, or a pharmaceutically acceptable salt thereof, in the manufacture of a medicament for the treatment or prophylaxis of inflammatory and/or allergic diseases.

25

15. A pharmaceutical composition which comprises a compound according to any of claims 1 to 10 optionally with a pharmaceutically acceptable carrier or excipient.

16. A pharmaceutical composition according to claim 15 which is suitable for inhaled administration.

17. A pharmaceutical composition according to claim 15 which is suitable for oral administration.